ABSTRACT

The present invention provides an aqueous composition useful for polishing copper on a semiconductor wafer comprising by weight percent 1 to 15 oxidizer, 0.1 to 1 inhibitor for a nonferrous metal, 0.05 to 3 complexing agent for the nonferrous metal, 0.01 to 5 carboxylic acid polymer, 0.01 to 5 modified cellulose, 0.0001 to 2 salt having a cationic and an anionic component, and balance water, the salt reducing noise level from vibration between the wafer and a polishing pad.